Baccharis pilularis D.C.

coyotebrush, chaparral broom Asteraceae (Aster Family)

Status: State Threatened

Rank: G5S1

General Description: Adapted from Hitchcock et al. (1955): A muchbranched evergreen shrub that is 12 to 60 in. (30 to 150 cm) tall. The leaves and twigs are sticky and sometimes covered with minute, branlike scales. The branches are longitudinally grooved. The leaves are thick, oblanceolate or cuneate to obovate or subrotund, coarsely few-toothed or merely angled often with 3 principal veins, up to about 2 in. (5 cm) long and 1 in. (2½ cm) wide, and sessile or nearly so. The heads are numerous in small, sometimes leafy-bracteate clusters. The involucre has portions of its structure that overlap and is 1/8 to 1/4 in. (3 to 5 mm) high. The pappus of the pistillate flowers much exceeds the corolla and involucre. The pappus bristles tend to be a little dilated with minutely or finely serrate fringe near the tip. The staminate flowers tend to number between 20 and 34, but are sometimes as few as 13, with a 1/8 to 1/4 in. (3 to 4 1/4 mm) corolla and a 1/8 to $\frac{1}{4}$ in. (3 to 4 $\frac{1}{4}$ mm) pappus. There are 10 to 43 yellow pistillate flowers with corollas that are \(\frac{1}{4} \) in. (2\(\frac{1}{2} \) to 4\(\frac{1}{2} \) mm). The fruit is 1/32 to 1/16 in. (1 to 2 mm), lacks hair, has 8 to 10 ribs, and a $\frac{1}{4}$ to $\frac{1}{2}$ in. (5\frac{1}{2}) to 9 mm) long pappus.

Identification Tips: *Baccharis pilularis* is the only member of its genus in the Pacific Northwest, where it can be distinguished from other taxa by its shrubby growth form, maritime habitat, and dioecious (male and female flowers on separate plants) habit.

Phenology: Flowers between August and September.

Range: This species has been found from Tillamook County, Oregon to southern California and it has been seen in New Mexico. One population was found in the southwest corner of Washington State. Coyotebrush ranges in elevation from 0 to 2461 ft (0 to 750 m), but sometimes reaches 4921 ft (1500 m). The Washington population ranges from 10 to 400 ft (3 to 122 m) in elevation.

Habitat: Coyotebrush can be found on sea cliffs and bluffs as well as sand dunes and thickets along the coast. It prefers open, dry sites and resides in dry forest and shrub habitats. In Washington, coyotebrush grows in two habitats. One habitat is comprised of basalt sea cliffs with south-southwestern exposure. These areas are open. Common associates include sitka spruce (*Picea sitchensis*), salmon

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Known distribution of *Baccharis pilularis* in Washington



- Current (1980+)
- O Historic (older than 1980)

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berry (*Rubus spectabilis*), sword fern (*Polystichum munitum*) salal (*Gaultheria shallon*), pacific reed grass (*Calamagrostis nutkaensis*), red fescue (*Festuca rubra*), brome fescue (*Vulpia bromoides*), velvet grass (*Holcus lanatus*), stone-crop (*Sedum spathulifolium*), and oceanbluff bluegrass (*Poa unilateralis*). The second habitat is made up of recently accreted sand dunes below the sea cliffs. These areas are open and often among red alder trees. Common associates in this habitat include American dunegrass (*Leymus mollis*), velvet grass (*Holcus lanatus*), lodgepole pine (*Pinus contorta* ssp. *contorta*), European beachgrass (*Ammophila arenaria*), sweet vernal grass (*Anthoxanthum odoratum*), and red alder (*Alnus rubra*).

Ecology: This species is commonly seen on bluffs and in oak woodlands in California and southern Oregon, where it is a dominant shrub in coastal chaparral communities. It is also sometimes found on serpentine soils in the southern portions of its range. *B. pilularis* prefers dry areas in full sun.

State Status Comments: Coyotebrush is known in Washington from only one site in the southwestern part of the state. There is only one recent occurrence. Additional inventory is needed to assess the status of the species.

Inventory Needs: Suitable habitats along the southern Washington coastline should be systematically surveyed for additional populations.

Threats and Management Concerns: The small range of coyotebrush in Washington and the single occurrence are major concerns. Trail development and park expansion could be detrimental to this population. Natural succession to forest on the dunes may eventually eliminate the more open habitat for the species there. Encroachment and competition by invasive exotic species are also concerns.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1955. Vascular Plants of the Pacific Northwest Part 5: Compositae. University of Washington Press, Seattle, WA. 343 pp.

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